

Claims

- [c1] (Canceled) A small-size magnetoresistive device which allows measurement of spatial distribution of magnetic field along one axis with high resolution that includes:**
- a magnetoresistive stripe oriented along the measurement axis,**
 - a plurality of conductive layers comprising electrodes distributed along the length of the stripe, separated by insulating layers.**
- [c2] (Canceled) A small-size magnetoresistive device according to claim 1, wherein the said conductive layers are formed as thin metal layers on the semiconductor substrate or insulation layers, and said insulation layers are thin dielectric layers formed on the said conductive layers or the said semiconductor substrate, and the said magnetoresistive stripe is formed on the surface produced by a cut across said metal and dielectric layers.**
- [c3] (Canceled) A small-size magnetoresistive device according to claim 1, wherein the said conductive layers are formed as thin metal layers on the semiconductor substrate or insulation layers, and**

**said insulation layers are thin dielectric layers
formed on the said conductive layers or the said**

semiconductor substrate, and the said magnetoresistive stripe is formed on the wall of the channel produced by etching of the said metal and dielectric layers.

[c4] (New) A small-size magnetoresistive device which allows measurement of spatial distribution of magnetic field along one axis with high resolution that includes a magnetoresistive stripe oriented along the measurement axis and a plurality of conductive layers comprising electrodes distributed along the length of the stripe, separated by insulating layers, wherein the said conductive layers are formed as thin metal layers on the semiconductor substrate or insulation layers, and insulating layers are thin dielectric layers formed on the conductive layers or the semiconductor substrate, and the magnetoresistive stripe is formed on the surface produced by a cut across said metal and dielectric layers.

[c5] (New) A small-size magnetoresistive device which allows measurement of spatial distribution of magnetic field along one axis with high

resolution that includes a magnetoresistive stripe oriented along the measurement axis and a plurality of conductive layers comprising electrodes distributed along the length of the stripe, separated by insulating layers, wherein the conductive layers are formed as thin metal layers on the semiconductor substrate or insulation layers, and insulation layers are thin dielectric layers formed on the conductive layers or the semiconductor substrate, and the magnetoresistive stripe is formed on the wall of the channel produced by etching of the metal and dielectric layers.